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May 5, 1982

Mr. R. C. Haynes
Regional Administrator, Region I
U.S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, Pennsylvania 19406

SUSQUEHANNA STEAM ELECTRIC STATION
FINAL REPORT OF A DEFICIENCY INVOLVING
RECIRCULATION PUMP LUG WELDS
ERS 100450/100508 FILE 821-10
PLA-1076



Dear Mr. Haynes:

This letter serves to provide the Commission with a final report on defects identified in the welds of Recirculation Pump Support Lugs.

This deficiency was originally reported by telephone to Mr. E. C. McCabe of NRC Region I on March 26, 1982 by Mr. A. R. Sabol of PP&L. At that time the condition was identified as "Potentially Reportable".

The attachment to this letter contains a description of the deficiency, its cause, an analysis of safety implications and the corrective action taken and planned. This information is furnished pursuant to the provisions of 10 CFR 50.55(e).

Since the details of this report provide information relevant to the reporting requirements of 10 CFR 21, this correspondence is considered to also discharge any formal responsibility PP&L may have in compliance thereto.

We trust the Commission will find this report to be satisfactory.

Very truly yours,

N. W. Curtis
Vice President-Engineering & Construction-Nuclear

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Attachment

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ERs 100450/100508

File No. 821-10

Mr. R. C. Haynes

cc: Mr. Richard C. DeYoung (15)
Director-Office of Inspection & Enforcement
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Mr. G. McDonald, Director
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SSES

PLA-1076

ERs 100450/100508

File 821-10

Attachment to PLA-1076

SUBJECT:

Defects identified in the welds of the support lugs on the Unit I Reactor Recirculation Pumps fabricated by Byron-Jackson.

DESCRIPTION:

During Pre-service Inspection of the "A" and "B" Reactor Recirculation Pump support lug attachment welds, rejectable liquid penetrant indications were noted. The deficiencies were documented on GE Field Deviation Disposition Request # KRI-300. Two out of four support lugs on "B" pump each contained a full penetration "double V" weld that required extensive grinding to the root of weld to remove the defect. One out of four support lugs on "A" pump contained a weld requiring the same extensive grinding. None of the remaining defects required grinding below the minimum weld thickness for their removal.

CAUSE:

In all three cases requiring extensive grinding, the cause can be attributed to the failure of the welder to achieve full weld penetration in certain areas of the backside of the welds. This is normally due to insufficient back gouging.

SAFETY IMPLICATIONS:

Each of the four pump lugs is designed with the capability to support 33% of full pump load. The three major weld defects noted above could have resulted in loss of lug attachment. Even though the recirculation piping provides some additional support, loss of two or more lugs could result in the loss of the pump from the recirculation line which would adversely affect the safe operation of SSES. PP&L considers this to be a significant deficiency in construction which requires repairs to the pump in order for it to perform its intended safety function and is therefore reportable under 10CFR50.55(e).

CORRECTIVE ACTION:

The corrective action for both "A" and "B" pumps consisted of defect removal and weld repair on all three lugs. The corrective action has been completed in accordance with GE instructions and ASME B&PV Code Section XI. The welds were subsequently examined by the liquid penetrant method and found acceptable.

Particular attention will be given to similar welds in Unit II during Pre-service Inspection.